

REMARKS

Claims 1-8 are pending in this application. By this Amendment, claims 1, 7 and 8 are amended. Reconsideration of the application is respectfully requested.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments:

(a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration as the amendments amplify issues previously discussed throughout prosecution; and (c) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

The courtesies extended to Applicant's representative during the personal interview held January 12 by Examiners Mitchell and Chaki, are gratefully appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicant's record of the interview.

The Office Action rejects claims 1-8 under 35 U.S.C. §103(a) over Biggerstaff (U.S. Patent No. 6,745,384) in view of Grundy ("Aspect-oriented Requirements Engineering for Component-based Software Systems"). The rejection is respectfully traversed.

In particular, as discussed during the personal interview, none of the applied references, alone or in combination, disclose or suggest a method for simplifying an aspect-oriented programming element comprising simplifying the programming element by reducing the programming element to a canonical expression, and associating at least one projection with the current stage simplified programming element using the at least one determined propagator, the at least one projection giving information about the role of a mathematical

expression in the simplification of the programming element, as recited in independent claim 1, and similarly recited in independent claims 7 and 8.

Biggerstaff teaches a method and system for anticipatory optimization of computer programs that generates code for a program that is specified using programming-language-defined computational constructs and user-defined, domain-specific computational constructs, the computational constructs including high-level operands that are domain-specific composites of low-level computational constructs (Abstract). However, a close examination of Biggerstaff shows that there is no teaching of aspect-oriented programming anywhere in the Biggerstaff reference. Moreover, Biggerstaff does not teach simplifying a programming element by reducing the programming element to a canonical expression, as indicated in the specification at, for example, paragraphs [0031], [0067] and [0034]. Finally, Biggerstaff does not disclose or suggest associating at least one projection that gives information about the role of a mathematical expression in the simplification of the programming element, as claimed in the independent claims and supported in the specification at, for example, paragraph [0037], lines 18-20, paragraph [0071] and paragraph [0025], lines 25-26. Accordingly, Biggerstaff fails to disclose or suggest the features of independent claims 1, 7 and 8.

Grundy teaches a new aspect-oriented component in generating methodology that addresses some issues of component requirements engineering by analyzing and characterizing components based on different aspects of the overall application a component addresses (Abstract). However, Grundy fails to cure deficiencies in Biggerstaff in disclosing or rendering obvious a method for simplifying an aspect-oriented programming element comprising simplifying the programming element by reducing the programming element to a canonical expression and associating at least one projection with the current stage simplified

programming element using a propagator, the at least one projection giving information about the role of a mathematical expression in the simplification of the programming element, as recited in independent claim 1, and similarly recited in independent claims 7 and 8. Thus, independent claims 1, 7 and 8, and their dependent claims, are patentable over a combination of the applied references. Accordingly, withdrawal of the rejection of the claims under 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-8 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Tarik M. Nabi
Registration No. 55,478

JAO:TMN/tje

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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